AMENDMENTS TO THE CLAIMS

24. (Previously Added) A transgenic mouse comprising a homozygous disruption in an endogenous mTMT gene, wherein the transgenic mouse exhibits one or more of the following phenotypes: decreased body weight; decreased thymus weight; decreased thymus weight to body weight ratio; and increased pre-pulse inhibition, all relative to wild-type mice.

25. (Previously Added) The transgenic mouse of claim 24, wherein the decreased body weight is a decrease of about 20% in female transgenic mice, relative to female wild-type mice.

26. (Previously Added) The transgenic mouse of claim 24, wherein the decreased body weight is a decrease of about 15% in male transgenic mice, relative to male wild-type mice.

27. (Previously Added) A transgenic mouse comprising a heterozygous disruption in an endogenous mTMT, wherein said disruption in a homozygous state inhibits production of a functional mTMT protein resulting in a transgenic mouse exhibiting one or more of the following phenotypes: decreased body weight; decreased thymus weight; decreased thymus weight to body weight ratio; and increased pre-pulse inhibition, all relative to wild-type mice.

28. (Currently Amended) A cell or tissue isolated from the transgenic mouse of claim 24 or claim 27 wherein said mouse comprises a homozygous disruption in an mTMT gene.

29. (Currently Amended) A method of producing a transgenic mouse comprising a homozygous disruption in an endogenous mTMT gene, the method comprising:

(a) providing a mouse embryonic stem cell comprising a disruption in an endogenous mTMT; and

(b) introducing the mouse embryonic stem cell into a pseudopregnant mouse, wherein the pseudopregnant mouse gives birth to a chimeric mouse; and

(c) selecting chimeric mice to breed to produce the transgenic mouse;

(d) breeding the chimeric mouse to produce the transgenic mouse

wherein the transgenic mouse comprises a homozygous disruption in an mTMT gene and wherein said mouse exhibits one or more of the following phenotypes: decreased body weight; decreased thymus weight; decreased thymus weight to body weight ratio; and increased pre-pulse inhibition, all relative to wild-type controls.

30. (Currently Amended) A targeting construct comprising:

(a) a first polynucleotide sequence homologous to a first region of an mTMT gene;

(b) a second polynucleotide sequence homologous to a second region of the mTMT gene; and

(c) a selectable marker located between the first polynucleotide sequence and the second polynucleotide sequence,

wherein the targeting construct, when introduced into a murine embryonic stem cell, ~~results in~~ can be used to make a transgenic mouse having a disruption in the endogenous mTMT gene, wherein the mouse when homozygous for a disruption in the mTMT gene exhibits one or more of the following phenotypes: decreased body weight; decreased thymus weight; decreased thymus weight to body weight ratio; and increased pre-pulse inhibition as compared to wild-type mice.

31. (Currently Amended) A method of producing a targeting construct for a mTMT gene, the method comprising:

(a) obtaining a first polynucleotide sequence homologous to a first region of a mTMT gene;

(b) obtaining a second polynucleotide sequence homologous to a second region of the mTMT gene;

(c) providing a vector comprising selectable marker; and

(d) inserting the first and second sequences into the vector such that the selectable marker is located between the first and the second sequences to produce the targeting construct,

wherein the targeting construct when introduced into a murine embryonic stem cell, ~~results in~~ can be used to make a transgenic mouse having a disruption in the mTMT gene, wherein the mouse when homozygous for the disruption in the mTMT gene exhibits one or more of the following phenotypes: decreased body weight; decreased thymus weight; decreased thymus weight to body weight ratio; and increased pre-pulse inhibition, all relative to wild-type controls.

32. (Currently Amended) A mouse embryonic stem cell transformed with the targeting construct of claim 30.

33. (Previously Added) A method of identifying an agent that modulates a phenotype associated with a disruption in a mTMT gene, the method comprising:

(a) administering an agent to a transgenic mouse comprising a homozygous disruption in the mTMT gene, wherein the transgenic mouse exhibits at least one of the following phenotypes: decreased body weight; decreased thymus weight; decreased thymus weight to body weight ratio; and increased pre-pulse inhibition, all relative to wild-type controls; and

(b) determining whether the agent modulates at least one of the phenotypes.